

# **Russell E. Emmenegger Nature Park and Possum Woods Conservation Area**

**Ten Year Area Management Plan  
FY 2016-2025**



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Outreach and Education Division Chief

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Date

## Russell E. Emmenegger Nature Park and Possum Woods Conservation Area Management Plan Approval Page

### PLANNING TEAM

Erin Shank, Urban Wildlife Biologist

Kevin Meneau, Fisheries Management Biologist

Mark Grueber, Urban Forester

Denise Hunsaker, Conservation Agent

Catherine McGrane, Assistant Nature Center Manager

Angie Weber, Community Conservation Planner

Murray Pounds, Kirkwood Parks and Recreation Director

Curtis Carron, Kirkwood Superintendent of Parks

### ST. LOUIS REGION

STL RCT Chair

*Signature*

*Date*

### OUTREACH AND EDUCATION DIVISION

Unit Chief

*Signature*

*Date*

## OVERVIEW

- **Official Area Name:** Russell E. Emmenegger Nature Park (Emmenegger), # 9506 and Possum Woods Conservation Area (Possum Woods), #8705
- **Year of Initial Acquisition:** 1986 for Possum Woods; Emmenegger is owned by the City of Kirkwood (25 year lease agreement began 1994).
- **Acreage:** Emmenegger is 117.1 acres; Possum Woods is 17.6 acres; total of 134.7 acres
- **County:** St. Louis
- **Division with Administrative Responsibility:** Outreach and Education
- **Division with Maintenance Responsibility:** Outreach and Education, Design and Development
- **Statements of Purpose:**
  - A. Strategic Direction**

Emmenegger and Possum Woods will be managed to provide an area of nature enjoyment close to home for urban residents which complements Powder Valley Conservation Nature Center. While Powder Valley is a heavily used urban nature center with little aquatic habitat, Emmenegger provides expanded interpretive and recreational opportunities in a riverine environment.
  - B. Desired Future Condition**

Provide nature recreation opportunities and manage as an upland and bottomland forested habitat in cooperation with the City of Kirkwood.
  - C. Federal Aid Statement**

N/A

## GENERAL INFORMATION AND CONDITIONS

- I. Special Considerations**
  - A. Priority Areas:** None
  - B. Natural Areas:** None
- II. Important Natural Features and Resources**
  - A. Species of Conservation Concern:** None
  - B. Caves:** None
  - C. Springs:** None
  - D. Other:** Occurs in the Scarped Osage Plains Alluvial Plans Land Type Association (LTA). This LTA consists of flat alluvial plains and infrequent terraces of the broader stream valleys. Historically, bottomland prairie, marshes and bottomland forests dominated (Nigh & Schroeder, 2002).
- III. Existing Infrastructure**
  - 1 large parking lot, 1 small parking lot and 1 access road

- Interior paved road (3/8 mi.)
- Bluff Creek Trail (1 mi.)
- Paved disabled accessible loop (1/3 mi.)
- Main lot trail (1/8 mi.)
- Spur trail (1/16 mi.)
- Restrooms
- Pavilion

#### **IV. Area Restrictions or Limitations**

- A. **Deed restrictions or ownership considerations:** The Emmenegger deed states the property shall be used as a public park. A copy is available in the area manager files. Emmenegger is owned by the City of Kirkwood (lease agreement expires 2019).
- B. **Federal Interest:** Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.
- C. **Easements:** None
- D. **Cultural resources findings:** Yes. The Emmenegger Nature Park is included in the National Register of Historic Places as part of the Cragwold Estate. Managers should follow Best Management Practices for Cultural Resources found in the Missouri Department of Conservation (the Department) Resource Policy Manual.
- E. **Hazards and hazardous materials:** None observed.
- F. **Endangered species:** None observed.
- G. **Boundary Issues:** None

### **MANAGEMENT CONSIDERATIONS**

#### **V. Terrestrial Resource Management Considerations**

The Emmenegger and Possum Woods tracts contain about 134.7 acres of remnant glade, woodlands and forest. The steep terrain and proximity to the Meramec River offer a wonderful opportunity for users to experience diverse natural communities within a short walk. Specifically, the area has four natural communities as described in the new Ecological Site Description program. They are listed below using the equivalent community descriptions from Nelson's *Terrestrial Natural Communities of Missouri* (2010) and in order of size:

- 1) Dry Limestone Dolomite Glade and Woodland
- 2) Riverfront Forest
- 3) Dry-Mesic Dolomite Woodland and Glade
- 4) Mixed Dry-Mesic Woodland

Significant populations of invasive exotic species exist on the area including (but are not limited to) bush and Japanese honeysuckle, burning bush, Japanese wintercreeper and Japanese hops. The quality of the natural communities is declining rapidly due to the high rate of spread of these species. The area can experience significant flooding when river levels are high – mostly in the riverfront forest community.

**Challenges and Opportunities:**

- 1) Glade and woodland community management.
- 2) Maintain healthy riparian forest habitat.
- 3) Potential for educational demonstrations on proper land management, especially for landowners of small acreage.
- 4) Demonstrate green or environmentally sensitive stormwater management practices, as appropriate.

**Management Objective 1:** Maintain healthy trees, woodlands and riparian forest habitats.

**Strategy 1:** Begin suppression and control of invasive species in remaining higher quality habitat, increasing the area as resources allow. (Department volunteers, Master Naturalists, and/or Kirkwood Parks and Recreation (Kirkwood) volunteers)

**Strategy 2:** Monitor trails and other public use areas for dead and damaged trees and remove, if needed. (Powder Valley Maintenance staff, Forestry staff and Kirkwood staff)

**Strategy 3:** Use prescribed fire and other appropriate management techniques to reduce sugar maple invasion and open up canopy in woodland areas. (Forestry and Kirkwood staff)

**Management Objective 2:** Restore and maintain healthy glade habitat.

**Strategy 1:** Begin suppression and control of invasive species in remaining higher quality habitat, increasing the area as resources allow. (Department volunteers, Master Naturalists, and/or Kirkwood volunteers)

**Strategy 2:** Use prescribed fire to reduce tree and shrub invasion. (Outreach and Education and Kirkwood staff)

**Management Objective 3:** Establish demonstration areas to educate users and volunteer groups on sound management practices.

**Strategy 1:** Use volunteer groups (Department volunteers, Master Naturalists) to assist with woodland and glade restoration.

**Strategy 2:** Use areas for established workshops and classes (Private Land Services landowner workshops, Master Naturalist training, etc.).

**Strategy 3:** Investigate signage to describe natural community management to area users (Outreach and Education interpretive staff).

**Management Objective 4:** Implement on-site stormwater best management practices that will serve as educational opportunities for park users and surrounding community.

**Strategy 1:** Investigate pervious surfaces for road and parking areas, when existing infrastructure is due for replacement (Design and Development and Kirkwood staff).

**Strategy 2:** Convert curb and gutter areas to bioswales, vegetated open channels, or filter strips to capture sheet flow from parking lot and road surfaces (Kirkwood staff).

**Strategy 3:** Utilize native plantings in all bioretention practices referenced in Strategy 2 (Design and Development and Kirkwood staff).

**Strategy 4:** Utilize pervious surfaces for trail repair and redevelopment (Design and Development and Kirkwood staff).

**Strategy 5:** Work with engineer to analyze, design and size stormwater management systems (Design and Development and Kirkwood staff).

**Strategy 6:** Involve Resource Science to develop monitoring system to evaluate effectiveness of stormwater practices and document maintenance requirements (Outreach and Education and Kirkwood staff).

## **VI. Aquatic Management Considerations**

Aquatic resources on Emmenegger/Possum Woods are limited to 0.7 miles of Meramec River frontage and 0.6 miles of intermittent Order 1 and 2 stream channels. Depending on river stage, the area's Meramec River frontage can provide bank fishing opportunities, which could potentially be improved in the upstream portion of the area. Very good boating and bank access is available nearby at Green Tree Park (0.7 miles upstream) and Winter Park (3.5 miles downstream), with additional bank access at Unger Park (0.2 miles upstream).

There are no existing flat water aquatic resources on the area and potential for flat water creation is poor, due to steep topography and incompatible soils.

### **Challenges and Opportunities:**

- 1) Limit stream bank erosion.
- 2) Provide public access to the Meramec River.

**Management Objective 1:** Maintain and, if needed, enhance wooded riparian corridors.

**Strategy 1:** Protect existing mature trees within 100 feet of the Meramec River (Kirkwood staff).

**Strategy 2:** Limit mowing within 100 feet of the Meramec River to allow for natural regeneration or planting of riparian trees (Kirkwood staff).

**Management Objective 2:** Explore the possibility of improving access to a Meramec River gravel bar.

**Strategy 1:** Inspect Meramec River frontage to determine availability of a stable stream bank to access a gravel bar during low flows (Fisheries).

**Strategy 2:** Develop and construct a low impact gravel bar access (Design and Development).

## VII. Public Use Management Considerations

### **Challenges and Opportunities:**

- 1) Provide for wildlife viewing opportunities.
- 2) Improve educational and interpretive opportunities.
- 3) Provide natural outdoor play areas for visitors.
- 4) Develop trail to access the Meramec River.
- 5) Build relationships with neighboring land owners.
- 6) Convert northern field to native prairie.

**Management Objective 1:** Provide wildlife viewing opportunities.

**Strategy 1:** Conduct annual management activities, such as timber stand improvement, invasive plant species control and prescribed burns, to provide habitat for a diversity of species (Forestry and Kirkwood staff).

**Management Objective 2:** Improve educational and interpretive opportunities at Emmenegger and Possum Woods.

**Strategy 1:** Communicate to the general public recreational opportunities (e.g., brochures, Atlas database) (Outreach and Education).

**Strategy 2:** Communicate to teachers, students, scout groups and youth groups the uniqueness of the area to facilitate as a possible destination for ecology classes, school programs and workshops (Outreach and Education).

**Strategy 3:** Work with Department Exhibit Shop and Kirkwood to replace current interpretive signs (Outreach and Education).

**Management Objective 3:** Create opportunity for outdoor play area for visitors.

**Strategy 1:** Work with Kirkwood to determine scope of the nature play area, consisting of balance beams, benches, tables, etc., made of logs and large tree trunks for climbing (Outreach and Education).

**Strategy 2:** Explore funding through the Arbor Day Foundation (Outreach and Education).

**Strategy 3:** Work with Kirkwood and the Arbor Day Foundation to design nature play areas (Outreach and Education).

**Management Objective 4:** Evaluate need for deer surveys and management.

**Strategy 1:** Evaluate the deer population annually based on area deer-vehicle collisions, neighbor complaints and visitor observations; and recommend survey and/or management actions if necessary (Wildlife).

**Management Objective 5:** Facilitate a good working relationship with neighboring land owners.

**Strategy 1:** Work with neighbors to minimize any boundary, trespass or any other issues affecting Emmenegger and Possum Woods or private property (Protection and Kirkwood staff).

**Strategy 2:** Promote habitat management on neighboring landowner properties (Private Land Services).

**Strategy 3:** Monitor regional trail efforts including the Ozark Trail and the Great River Greenway District River Ring (Private Land Services).

**Management Objective 6:** Explore feasibility of converting existing open fields to prairie.

**Strategy 1:** Work with Kirkwood and Shaw Nature Reserve to develop design of prairie (Outreach and Education).

**Strategy 2:** Communicate the benefits of converting field to prairie with neighbors (Outreach and Education).

## **VIII. Administrative Considerations**

**Challenges and Opportunities:**

- 1) Revise Lease and Management Agreement with City of Kirkwood.
- 2) Maintain area infrastructure at current levels.
- 3) Acquisition of land.
- 4) Enforcement of area regulations.

**Management Objective 1:** Revise Lease and Maintenance Agreement with City of Kirkwood.

**Strategy 1:** Work with Kirkwood to revise agreement to reflect current responsibilities for maintenance of area (Outreach and Education).

**Management Objective 2:** Maintain area infrastructure at current levels.

**Strategy 1:** Maintain area infrastructure in accordance with Department and Kirkwood guidelines (Design and Development and Kirkwood staff).

### **Management Objective 3: Acquisition of land.**

**Strategy 1:** When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other Department priorities, as identified in the annual Department land acquisition priorities, may be considered (Outreach and Education).

**Management Objective 4:** Enforcement of area regulations.

**Strategy 1:** Protection Division will enforce area regulations (Protection).

## **MANAGEMENT TIMETABLE**

Strategies are considered ongoing unless listed in the following table:

Objective 1									
Strategy 1	X	X		X				X	

## APPENDICES

### Area Background:

Emmenegger is 117.1 acres of bottomland and upland forest, and one small mowed field. Possum Woods, contiguous with Emmenegger on the southeast corner, is 17.6 acres of upland forest. The combination of the two areas contains approximately 134.7 acres.

Both areas are located in St. Louis County. Emmenegger is within the City of Kirkwood; Possum Woods lies within the City of Sunset Hills. Both sites are a part of Section 14 and 15 in Township 44N, Range 5E, and are located immediately west and across U. S. I-270 from Powder Valley Conservation Nature Center.

The site was originally part of the Lemp family estate; the family owned a large St. Louis brewery at the turn of the twentieth century. During this period, portions of the estate were used to raise exotic game animals in conjunction with the St. Louis Zoo.

An adjacent Kirkwood swimming pool complex was part of a popular Meramec River resort named Sylvan Beach, which was active from the 1920s to the start of WWII; the swimming pool portion of the property lies in Sunset Hills. The property is named for Mr. Russell E. Emmenegger, a real estate developer who purchased the land in the 1970s. He then donated a portion of the land to the city of Kirkwood; the balance of the property was purchased by means of a federal grant. The park remained undeveloped until 1994.

On Aug. 26, 1994, the Department entered into a 25-year lease agreement with the City of Kirkwood, by the payment of “One Dollar and other valuable considerations” for the management of Emmenegger. The purpose of the lease was to improve public access to an existing trail system, to enhance the utilization of the Possum Woods tract, and increase total recreational and interpretive program opportunities near the heavily used Powder Valley Conservation Nature Center.

From 1995 to 2000, the Department supervised the construction of a half mile disabled accessible trail, a one-mile primitive surface hiking trail, a pavilion, a parking lot and a footbridge over the creek. The area is primarily for hiking, bird watching and dog walking. The area is occasionally used for fishing along the Meramec River.

The pavilion may be reserved through Kirkwood Parks and Recreation. Pets are allowed on a six foot leash. The area does not allow training hunting dogs off leash. Hours are sunrise to sunset, except when hours are extended by permission from Kirkwood Parks and Recreation department.

### **Current Land and Water Types**

<b>Land/Water Type</b>	<b>Acres</b>	<b>Feet</b>	<b>% of Area</b>
Bottomland Forest	30		22
Woodland/Glade Complex	87		65
Open	17		13
<b>Total</b>	<b>134</b>		<b>100</b>
Stream Frontage		5,040	

### **Public Input Summary:**

The draft Emmenegger Nature Park and Possum Woods Conservation Area Management Plan was available for a public comment period August 1–31, 2014. The Missouri Department of Conservation received 22 comments from 20 respondents (Appendix A). The Emmenegger Nature Park and Possum Woods Conservation Area Planning Team carefully reviewed and considered these ideas as they finalized this document. A brief summary of public input themes, including how they were incorporated or why they were not, can be found below. Rather than respond to each individual comment, comments are grouped into general themes and are addressed collectively.

#### Department responses to themes and issues identified through Emmenegger Nature Park and Possum Woods Conservation Area public comment period

#### **Terrestrial Management:**

**Supports restoration of glades and other natural communities. Supports restoring area to pre-settlement conditions. Supports the use of prescribed fire to restore habitats.**

**Supports working with volunteers to eradicate invasive plants (honeysuckle, euonymus, Mimosa, etc.). Suggests organizing all different groups who volunteer on area into a single volunteer group devoted to Emmenegger. Suggests scientific monitoring and inventory of all biota on area and encourage citizens to share lists of biota observed.**

Planning team members support restoration of glades and other natural communities through prescribed fire (subject to approval of local fire marshal) and eradication of invasive plants.

Team members also support using volunteer groups to assist with eradication of invasive plants and collection of biota information.

**Suggests increasing use of area as demonstration area for restoration of semi-urban natural areas.**

Planning team members support establishing demonstration areas to educate users and volunteer groups on sound management practices.

**Suggests constructing ephemeral ponds for reptiles and amphibians.**

While we do not plan to construct ephemeral ponds, they do occur as a result of the regular flooding regime of the area.

**Aquatic Management:****Supports pervious surfaces for roads, parking lots, and trails and signage related to pervious surfaces and rain gardens.**

Planning team members support investigating surfaces and rain gardens that would promote stormwater best management practices and creating relevant interpretive signage.

**Suggests cleaning up along Meramec River.**

We would be willing to partner with volunteers, Operation Clean Stream and/or other nongovernmental organizations to accomplish this.

**Public Use Management:****Supports continuing ban on bicycle use. Suggests “No Bicycles” sign and bike rack at entrance. Supports ban on horseback riding.**

Planning team members support continuing the ban on bicycles and horseback riding on the area. A sign can be provided at the request of the Kirkwood Park Board. The bike rack issue can be addressed by the City of Kirkwood.

**Opposes trail development through Meramec riverfront. Opposes regional multi-use (hike/bike) trails through this area. Suggests removing strategy to monitor regional trail efforts (Public Use Management Objective 5, Strategy 3).**

Planning team members agree that efforts for a regional trail should be monitored to keep the City of Kirkwood aware of trail efforts should the city decide in the future to pursue participation in said trail.

**Suggests working with Kirkwood Parks Department to address off-leash dogs. Suggests banning pets from the area.**

MDC continues to work with Kirkwood Parks and Recreation Department to address off-leash dogs on the area. MDC and the Parks Department respond to all complaints of off-leash dogs. Banning pets entirely is a City of Kirkwood decision.

**Supports improved access to gravel bar. Opposes developing gravel bar access.**

Planning team members agree the Meramec River frontage should be inspected to determine if gravel bar access is available during low flows. This will improve access to the river.

**Suggests adding a boat ramp to the Meramec River.**

MDC has achieved all its boat access objectives in this section of the Meramec River. Green Tree Park and Meramec Landing accesses are only 0.8 miles and 3.2 miles from Emmenegger Nature Park and Possum Woods Conservation Area.

**Suggests creating a disabled-accessible fishing area.**

This site is not conducive for a fishing access. MDC has no plans to create disabled-accessible bank fishing facilities on the Meramec River. However, nearby Meramec Landing Access (City of Valley Park) offers disabled-accessible boat launch capabilities.

**Suggests allowing night fishing once or twice a year.**

Fishing is allowed only during area hours, which are determined by the City of Kirkwood.

**Suggests trail access for fishing in Meramec River further from parking lot.**

Area infrastructure will be maintained at current levels due to budget and staffing restraints.

**Suggests trail improvements and additional connecting trails. Supports ongoing maintenance for picnic shelter, water tap, and restroom.**

Area infrastructure will be maintained at current levels due to budget and staffing restraints.

**Opposes development of playground/natural outdoor play area. Supports adding a swing set near pavilion.**

Planning team members support the development of a natural outdoor play area to encourage exploration and interaction with nature. This plan does not support manufactured playground equipment.

**Suggests increasing patrols of area to minimize area use violations. Suggests installing photo surveillance system if routine surveillance fails to protect area.**

Frequency of patrols is determined by budgets, staffing, and availability. Planning team members do not support installation of photo surveillance system. Such a system would be costly and not very effective if staff is not available to monitor the system on a frequent basis.

**Suggests allowing archery deer and turkey hunting.**

Planning team members support evaluating the deer population annually. The members also recommend deer survey and/or management actions if necessary.

**Suggests allowing mushroom collecting on area.**

This is a City of Kirkwood decision.

**Administrative Management:**

**Appreciates Emmenegger Nature Park.**

Planning team members thank citizens of Kirkwood and other users for their support of Emmenegger Nature Park and Possum Woods Conservation Area.

**Suggests improving entrance appearance. Suggests entrance sign that says “Emmenegger Nature Park” instead of “Emmenegger Park.”**

MDC will work with Kirkwood on these suggestions.

**Opposes further development or construction.**

Any benefits of further construction or development would have to be taken into consideration by the City of Kirkwood.

**Suggests more frequent mowing of grassy field.**

The mowing schedule is determined by the City of Kirkwood.

**Suggests working with nearby soccer facility to lower their music.**

The soccer field is in St. Louis County jurisdiction. Any requests regarding the management of the soccer field should be addressed to St. Louis County.

**Suggests keeping area open at least thirty minutes after sunset.**

City of Kirkwood determines the hours the area is open for public use.

**Supports acquiring adjoining property from willing sellers or encouraging conservation easements.**

Adjacent land may be considered for acquisition when available if the tract(s) improve area access, provide public use opportunities, or meet Department priorities.

**Requests information on the role that the City of Kirkwood plays in the management and maintenance of the area.**

The lease agreement is available through the City of Kirkwood or MDC Realty Services. The current lease will expire in 2019, and roles of MDC and Kirkwood will be updated.

**Suggests replacing fences around glades. Supports the use and maintenance of wood chips on trails.**

The area infrastructure will be maintained at current level, with repair or replacement when necessary.

**Suggests more frequent updating of bulletin board information.**

MDC will work with the City of Kirkwood to coordinate bulletin board information.

**Suggests better signage explaining rules of area. Suggests better signage marking boundaries of area. Suggests rotating interpretive and regulatory signs (more likely to be read if they change often).**

We will work with MDC Exhibit Shop and Kirkwood Parks and Recreation to replace current signs. The time and cost of developing signs prohibits us from rotating signs.

**References:**

Nelson, P. W. (2010). *The terrestrial natural communities of Missouri*. The Missouri Natural Areas Committee, Missouri Department of Natural Resources.

Nigh, T. A., & Schroeder, W. A. (2002). *Atlas of Missouri Ecoregions*. Jefferson City, Missouri: Missouri Department of Conservation.

**Maps:**

Figure 1: Area Map

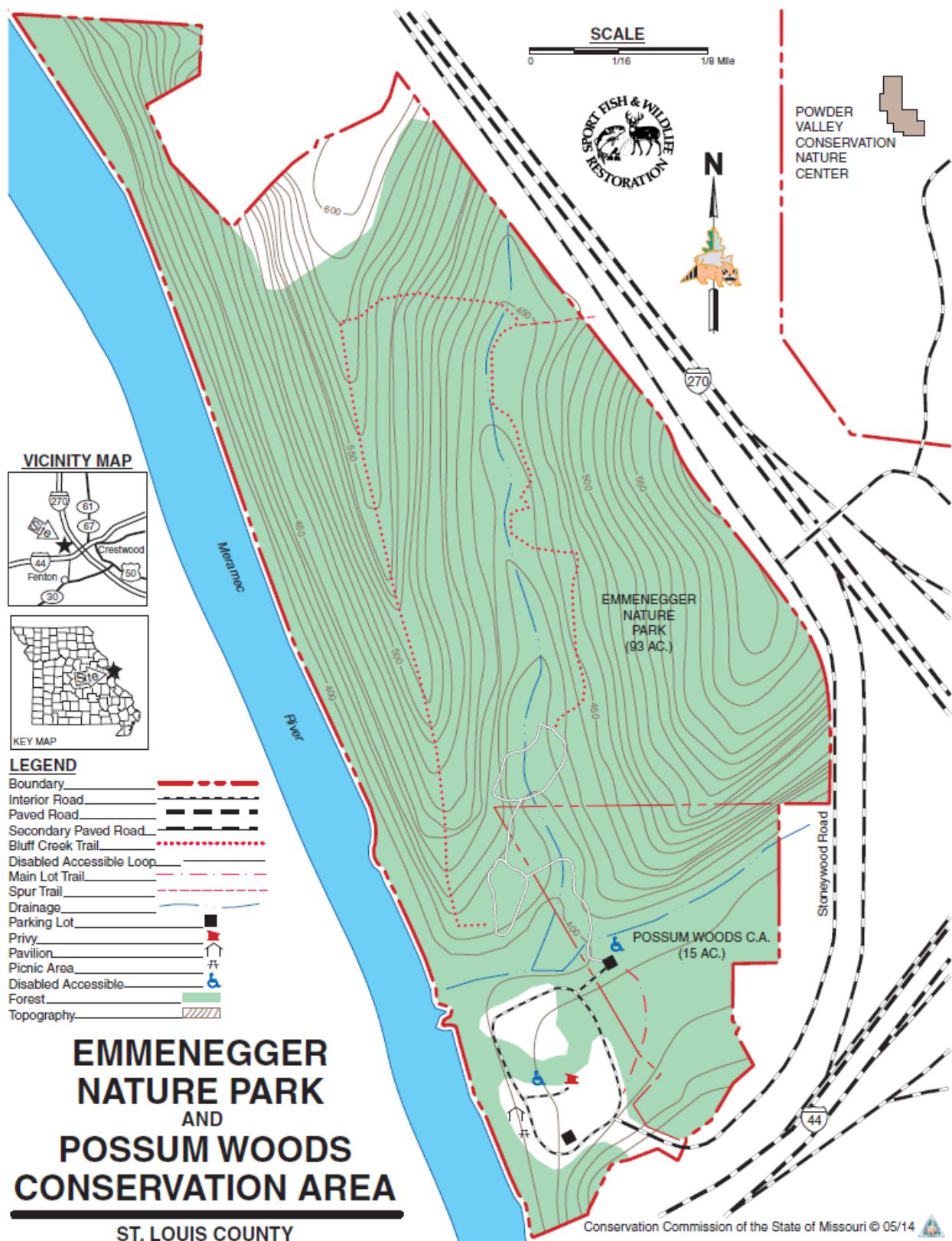
Figure 2: Aerial Map

Figure 3: Topographical Map

Figure 4: Current Vegetative Map

**Additional Appendices:**

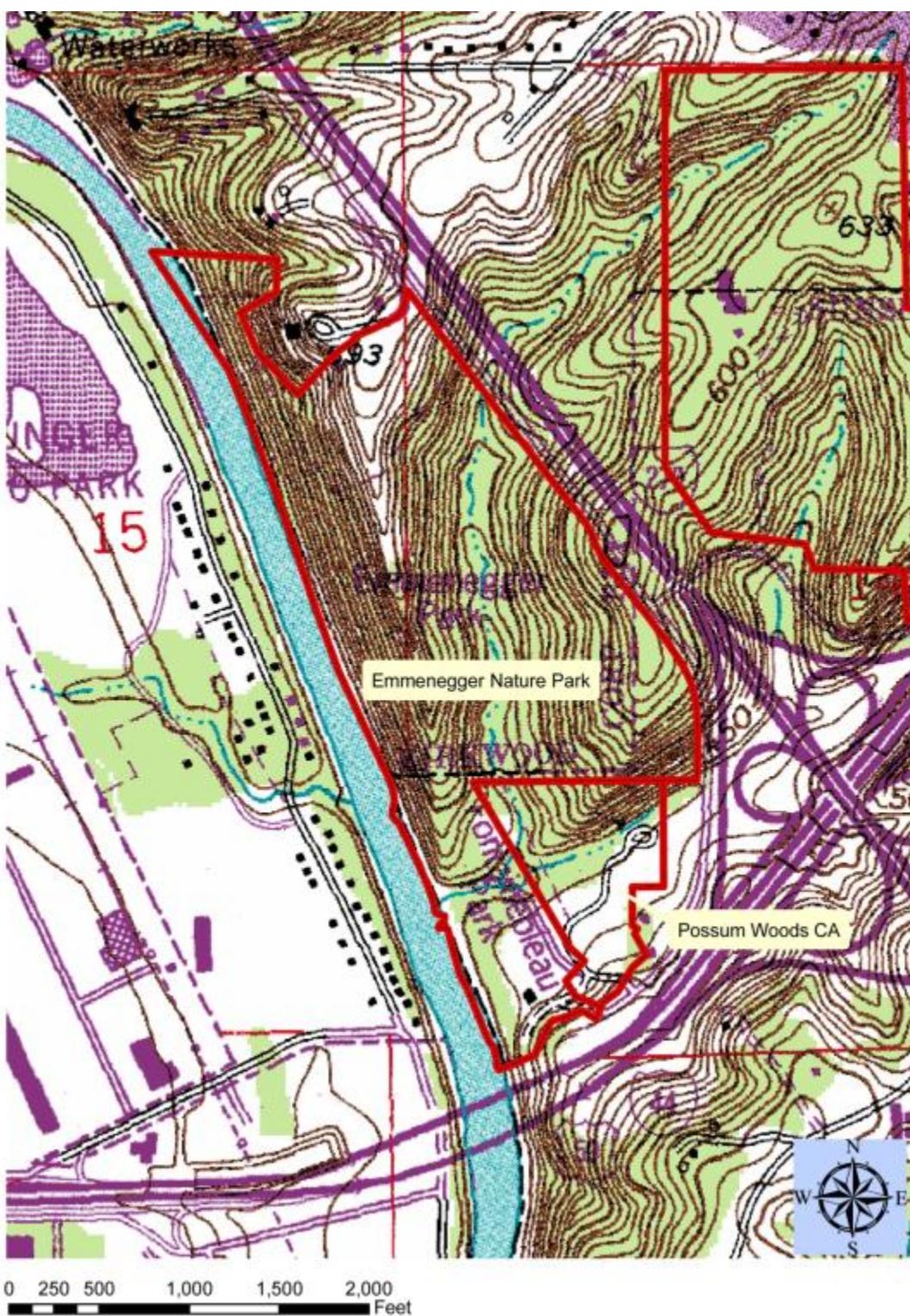
Appendix A: Draft Emmenegger Nature Park and Possum Woods Conservation Area Management Plan Public Comments

**Figure 1: Area Map**

**Figure 2: Aerial Map**



Figure 3: Topographical Map



**Figure 4: Current Vegetative Map**

### Ecological Site Description (Vegetative Cover) Map



## Appendix A. Draft Emmenegger Nature Park and Possum Woods Conservation Area Management Plan Public Comments

Received during public comment period (August 1-31, 2014)

I visit this area often to hike and walk the gravel bar along the river. Trail improvement and improved access to the gravel bar would both be great. Also adding more trails in connecting fashion to the current trail. Improving the infrastructure in the future with impervious surfaces is of course wise. Any signage to instruct the public on rain gardens and impervious surfaces would also be good. creating a disabled fishing area would be good but probably difficult with flooding and terrain.

Just want to let you know that Emmenegger Park is one of my favorite places to take my Cub Scouts for hikes and outdoor play. They love the river access, creek, and steep hike, which is just about long enough! We have even been there in the winter. It's proximity to Powder Valley is perfect if they need more time outside or a place to warm up in winter. Thank you for taking great care of this little gem of land. We look forward to the improvements!

The master plan looks nearly perfect. If I were "in charge" of Emmenegger Park, the very first physical change I would want to make would be an improvement and upgrade of the appearance of the entrance. Similar attention should be paid to blocking off and improving the appearance of informal entrances in to the park along Cragwold. Reduce pavement as much as possible [granting the need for some handicap accessible touring areas]; create some safe but minimal access to the river.

The most important thing would be to increase use by MDC of the area as a tool for education regarding restoration and maintenance of semi-urban "natural" areas. Park use should focus on a very broad user population and avoid having the park wind up as a special use area for any particular group. The current ban on bicycle activity should be maintained and strengthened if possible as it is so damaging to the steep hillsides.

I'm a member of the Great Rivers chapter of Missouri Master Naturalists and can hardly wait to get started on a plan for restoring Emmenegger Park and opening its use for nature education.

Any new entrance sign should say "Emmenegger Nature Park," not just "Emmenegger Park," to preserve the park's unique identity.

NO trail development through the Meramec riverfront, essential as a wildlife corridor, serene aesthetic refuge and irreplaceable local example of natural Meramec River habitat.

Continue bike ban to protect against mountain bike abuse, need sign + bike rack at entrance.

Work with Kirkwood Parks Department to address off-leash dog problems, consider dog walking

by licensed permit only.

Don't spend precious \$\$\$ on a playground, kids should be encouraged to explore nature.

Prioritize + earmark \$\$\$ for restoration of glades and other natural communities.

Dedicate \$\$\$ and work with volunteer groups to eradicate honeysuckle, euonymus and other invasive non-native vegetation.

Improve for BEST water quality, wildlife corridor, biodiversity and deer management standards.

NO further development/construction. Preserve the park's rustic and unspoiled qualities as an invaluable peaceful, aesthetic, educational and biodiverse resource of Meramec River habitat for future generations to enjoy and learn about Missouri ecology and natural communities.

I think the plan could have considerable more vision to leverage as noted the heavily trafficked Powder Valley Nature Center. Utilization could include a connecting trail separated in some way where possible from traffic running into the North at Possum trail or South to the banks of the Meramec. The Meramec river at Emmenegger appears very pristine at times given the correct conditions and the northern shoreline very accessible. More possibly could be done to preserve this asset by cleaning up what appears to be an abandoned boat ramp and visible oil or natural gas pipelines. Replacement of the boat ramp would serve vital to access the lower Meramec from the point, given the other public ramp points are south of I 55 if I'm not mistaken.

Sincere thanks to all at MODNR,

I am a resident of the City of St. Louis. I take my wife and two children to Emmenegger at least five times a year, as one of the closest places to the City of St. Louis to find nature.

Please make sure any new entrance sign should say "Emmenegger Nature Park" not just "Emmenegger Park," in order to preserve the park's unique identity.

There should be no trail development through the Meramec riverfront, essential as a wildlife corridor, serene aesthetic refuge and irreplaceable local example of natural Meramec River habitat.

The bike ban should continue to protect against mountain bike abuse, there should be a sign and a bike rack at entrance.

MDC should work with the Kirkwood Parks Department in addressing off-leash dog problems.

Please don't spend money on a playground - kids should be encouraged to explore nature.

Please prioritize and earmark money for restoration of glades and other natural communities.

Please dedicate money and work with volunteer groups to eradicate honeysuckle and other invasive non-native vegetation.

There should be no further development/construction in order to preserve the park's rustic and unspoiled qualities.

I am a resident of the City of St. Louis. I take my wife and two children to Emmenegger at least five times a year, as one of the closest places to the City of St. Louis to find nature.

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The bike ban should continue to protect against mountain bike abuse, there should be a sign and a bike rack at entrance.

MDC should work with the Kirkwood Parks Department in addressing off-leash dog problems.

Please don't spend money on a playground - kids should be encouraged to explore nature.

Please prioritize and earmark money for restoration of glades and other natural communities.

Please dedicate money and work with volunteer groups to eradicate honeysuckle and other invasive non-native vegetation.

There should be no further development/construction in order to preserve the park's rustic and unspoiled qualities.

Emmenegger needs to have the honeysuckle and euonymus eliminated. It should be restored to its most natural state with no bike paths, no off leash animals, no concrete or playground areas. Native plants only with natural glades.

Thank you

The amount of "invasive vegetation" at Emmeneger is second only to the amount at MDC's Powder Valley next door. The snail-pace slowness of MDC to remove the invasive honeysuckle and ailanthus at your Powder Valley should make it an embarrassment for you to point out how

removal of "invasive vegetation" is sorely needed at Emmenegger. (But putting the fact into a wordy document is always easy and "civil servants" are seldom embarrassed! Can a taxpayer ask how the "clearing invasive species" part of the Powder Valley Management Plan is coming along???)

Under the topic "Public Use Mgmt Considerations" there is topic: "3) Provide natural outdoor play areas for visitors". Recognizably there is a fine picnic shelter...a water tap usually "locked-off"...and one restroom...condition unknown by this commentor.

The area should have such a picnic shelter, a water tap, and a restroom. If you could just keep those three items in good working order you would be doing well!!

Perhaps add a swing set nearby. And keep the grassy field mowed.

BUT I fail to see any need for any more of "Providing natural outdoor play areas for visitors". Have you put any such areas in at Powder Valley in its 20 year history??? Is this another "new gimmick" in the Recreational Management Major's handbook? Does not Kirkwood and Sunset Hills already provide excellent play areas at its nearby parks for visitors?

Since many of you at MDC have read or browsed the book "Last Child in the Woods"

I would continue to make its obvious "themes" the guiding goal of a Management Plan at Emmenegger = Viewing/Feeling/Learning about Nature...thus trying to get more native biodiversity to return to those acres of Emmenegger.

And if some idiots want to put in an asphalt/concrete path along the Meremec River from the upstream or downstream already existing local parks on that side of the river in the obvious flood-plain to make a "neat" bike/jogging path...well, that is the idiocy that this commentor is waiting to watch happen...and then watch said expensive path keep getting undercut and washed away in the flooding.

Please give increasing the biodiversity a helping hand and the priority at Emmenegger. Enough walking paths are already there. Plus a nice picnic shelter. Just keeping the restrooms clean and operable is probably a challenge enough!!!

Thank you

This park should NOT have playground eqpt in it. It is a nature park. Young visitors should be experiencing nature not made man playground eqpt which they have in other parks. It would detract for the objective of connecting kids with nature. This park was nearly destroyed by bikes in the past and under no circumstances should the prohibition on bikes be lifted nor should a

trail, along the river be constructed for bikes. The park is overrun with off and on leash dogs. Dog owners and the dogs are creating uncomfortable confrontations with those wishing truly to converse the nature in the nature park. I have personally been challenged by off leash dogs and their indignant self righteous owners the last three times I visited. It is a recipe for dog on dog, dog on human or human on human conflict and it must be addressed. MDC lists dogs as the number one threat to wildlife so why are they even allowed in the park at all? Kirkwood does not have the staff or the means to enforce the leash law in the park. Dogs and bikes are inconsistent with the objectives of maintaining and retaining this park for nature. Powder valley has rationale reasons and values that prohibit bikes and dogs. The same values and ban on bikes and dogs should apply to Emmenger. MDC should be consistent in how it manages land for conservation especially when it is aware of the problems dogs are creating and bikes have created in this park. A public objective from the current Kirkwood parks master plan was to leave parkland like Emmy in a natural state for future generations. So do it. Outside special interest groups such as cyclist groups, the ozark trail and regional bike trail organizations like GRG should not have unfair influence and preference over the residents of Kirkwood's expressed desire as to how their parkland should be managed. Adjacent residents do not want to give up their property for social infrastructure multi use trails, regional trails, etc through this park. Kirkwood cannot ensure safety and existing park rules as it is. Don't promote school field trips until off leash dog problem is under control. You don't want a child on a school field trip to be bitten or mauled by dogs roaming at large or challenged by bad dog owners in the park. People, carry guns to parks now. Ban dogs period just like powder valley does. Dog owners can take their dogs to a number of parks in the area. Thank you for providing this opportunity for public input. Emmy is special to many people and a sanctuary for both wildlife and stressed out people. Please preserve it in its natural state for generations to come, once it's gone- it's gone for good. More thoughts - I think constructing some ephemeral ponds that could collect and hold spring rainfall on the steep slopes would help the reptile populations ie frogs and toads. Please work with the soccer facility across the river to lower their music which is too loud and disrupts visitors to Emmy. Sorry to ramble but I don't know how to edit in this format.

Please give top priority to the wildlife, because they can't protect themselves from us. Remove invasive exotic species, and protect the park as a travel corridor for wildlife. Please don't develop the park. The presence of people prevents the wildlife from thriving. For the same reason, please don't allow bicycles anywhere but on paved roads.

Bicycles should not be allowed in any natural area. They are inanimate objects and have no rights. There is also no right to mountain bike. That was settled in federal court in 1996: <http://mjvande.nfhost.com/mtb10.htm>. It's dishonest of mountain bikers to say that they don't have access to trails closed to bikes. They have EXACTLY the same access as everyone else -- ON FOOT! Why isn't that good enough for mountain bikers? They are all capable of walking....

A favorite myth of mountain bikers is that mountain biking is no more harmful to wildlife,

people, and the environment than hiking, and that science supports that view. Of course, it's not true. To settle the matter once and for all, I read all of the research they cited, and wrote a review of the research on mountain biking impacts (see <http://mjvande.nfshost.com/scb7.htm> ). I found that of the seven studies they cited, (1) all were written by mountain bikers, and (2) in every case, the authors misinterpreted their own data, in order to come to the conclusion that they favored. They also studiously avoided mentioning another scientific study (Wisdom et al) which did not favor mountain biking, and came to the opposite conclusions.

Those were all experimental studies. Two other studies (by White et al and by Jeff Marion) used a survey design, which is inherently incapable of answering that question (comparing hiking with mountain biking). I only mention them because mountain bikers often cite them, but scientifically, they are worthless.

Mountain biking accelerates erosion, creates V-shaped ruts, kills small animals and plants on and next to the trail, drives wildlife and other trail users out of the area, and, worst of all, teaches kids that the rough treatment of nature is okay (it's NOT!). What's good about THAT?

To see exactly what harm mountain biking does to the land, watch this 5-minute video:  
<http://vimeo.com/48784297>.

In addition to all of this, it is extremely dangerous:  
[http://mjvande.nfshost.com/mtb\\_dangerous.htm](http://mjvande.nfshost.com/mtb_dangerous.htm) .

For more information: <http://mjvande.nfshost.com/mtbfaq.htm> .

The common thread among those who want more recreation in our parks is total ignorance about and disinterest in the wildlife whose homes these parks are. Yes, if humans are the only beings that matter, it is simply a conflict among humans (but even then, allowing bikes on trails harms the MAJORITY of park users -- hikers and equestrians -- who can no longer safely and peacefully enjoy their parks).

The parks aren't gymnasiums or racetracks or even human playgrounds. They are WILDLIFE HABITAT, which is precisely why they are attractive to humans. Activities, such as mountain biking, that destroy habitat, violate the charter of the parks.

Even kayaking and rafting, which give humans access to the entirety of a water body, prevent the wildlife that live there from making full use of their habitat, and should not be allowed. Of course those who think that only humans matter won't understand what I am talking about -- an indication of the sad state of our culture and educational system.

These comments are in a sense generic, but in reality and application, they are specific to any location that is subjected to the negative environmental, social and regulatory impacts always associated with mountain bikes and bikers.

### On Wildlife and mountain bikes!

The basic science of human – wildlife interaction solidly supports the general claim that mountain bikers and bikes are displacing bears (and almost all other species), can contribute to their habituation and are consequently adding negative load on human / wildlife conflict. I think it has been conclusively established that most kinds of human activity / presence displace bears, and if/when there are bears that are not displaced and/or become habituated, they die at a disproportionate rate, consequently their reproductive fitness is reduced (as is that of their mothers and fathers). Amongst the leading agents of displacement are industrialized forms of human activity that depend on machines / motors / mechanization to move people great distances, move them often and quickly, and with considerable "baggage" (garbage, guns, trailers, ATVs, dogs, and so on). Mountain bikers fit the general category of industrial users, since they come by vehicle (mechanized means), move greater distances and more quickly than people on foot, (allowing quick approach and surprise encounters), have escalated their use of all public lands, and are a behavioral cult in which a significant proportion of participants exhibits high levels of aggression, partly against the environment, partly against traditional outdoor users, and partly against members of society who identify their activities as destructive.

### Cumulative Impacts

Another not inconsequential impact of mtn bikes and bikers is they have forced themselves into landscapes that historically and even quite recently did not have traditional mechanized vehicle access. There are literally hundreds of formerly "mini" security areas (of a wide range in size) in local and regional parks (and this is in addition to what are thought of as traditional public lands - National parks, National or State/provincial Forests, and in the US, BLM lands) that harbored some forms of wildlife because they had limited and low access refuge areas. These are the "homes" of urban deer, coyotes, badgers, even bears and cougars, that are no longer providing day time (high human activity time) refuge and escape (from humans, pets and daytime heat).

I was just in Calgary a bit back and went for a walk in a provincial Park (Fish Creek) inside Calgary city borders that formerly contained some forested refuge lands. These areas were cool, relatively dark, and discouraging to most (almost all) walking and running Park users. I was dismayed to see the extensive mtn bike roads, along with formal support of biking. The dense aspen and spruce/pine stands that I estimate were 5 - 50 acres in size, and functioned as ecological and behavioral "spaces" that provided security and thermal refuge for wildlife, are

gone. The bike roads are well used (there are 1.2 millions people in the city, and there ARE bikers) and now bring bike and biker threats to wild animals that formerly had a daytime hideout. One such threat (there are several) is the common practice of bikers who “run” their pet dogs when they bike, dogs that are often allowed off leash (most often illegally), and are not only a threatening presence to wildlife via odor, sound and movement, but can be expected to (not uncommonly) leave the road and, at least short term, pursue wild animals. But it remains the bikes and bikers who are most intrusive. While there are high levels of use of the initially established paved trails the majority of users (walking, hiking, running, just wanting to be outside) stick to them and leave the formerly off trail areas alone. Because of bikers and their roads, this “standoff” no longer exists (to the detriment of wildlife).

And it gets worse! The demand / need for refuge from humans is greatest when human use is highest, usually on weekends. Previously un-biked niches in the landscape are of disproportionate ecological value during these peak periods. So, what happened? These refuge habitats have been dissected by bike roads, which are destructive by themselves, but biker use also peaks on weekends, aggravating loss of habitat effectiveness at a time when demand / need for it is greatest, so the negative impact of biker use is not linear in relation to the increased number of bikes, but exponential given conflict with the elevated need for refuge by wildlife.

### Habituation

Will this result in or increase the level of wildlife habituation? Any activity that escalates contact (space, visual, sound) between humans and their infrastructure and an animal changes the ambient environment for an animal and produces some sort of learning in a wild animal. If the learning modifies behavior by eliminating or altering the strength or frequency of behaviors in response to a given stimulus (human yelling at it from the back yard, vehicle sound/movement, visual presence of human structures, dogs barking) and that initial behavior contributed to that animal's fitness (survival and reproductive success), then that animal is subject to increased risk of injury and death and, consequently, life time reproductive success is jeopardized.

It may well be that the invasion of bikes/bikers “forces” contact with humans and leads to a more delicate and potentially explosive conflict. While I can't find any evidence in the scientific literature to support this particular situation, it seems reasonable to consider that an animal forced from its routine and from secure (to whatever degree) habitat, makes for an uneasy state of contact with humans and their infrastructure – a condition that could be more explosive due to the stress level related to the forcing. This contrasts with contact that might be initiated by the animal or other animals – for example, attraction to food, or a bear female with young that wants to avoid other bears and but can still use that habitat other years when she has no young or when other bears are absent. In the case of biker/biking displacement there is essentially permanent displacement and limited, if any, opportunity to reoccupy formerly (more) effective habitat. In

other words, the predictability or stability, even strength, of the forced habituation could lead to unpredictable confrontation.

Could local residences and human centers of activity begin to experience use by wildlife that formerly stayed away? I don't think there's any doubt about it. The consequences will be / are that fragmentation and use of refuge areas by bikers and bikes will reduce their capacity to harbor animals, displace them and their use/activity to other adjacent landscapes, many of which will be ecological traps, increase conflict with humans (and other animals), and incrementally reduce overall wildlife use of the larger area as well as reduce population size, distribution and movement. All these will unbalance wildlife dynamics and contribute to long term, incremental reduction of population viability.

The social / educational loss of tolerance for wildlife (the deer eating the roses, the black bear "near" the fence, the bear that "threatened" a biker) that some parts of human society can develop are also (generally) unproductive by-products of conflict and association: amongst these are distrust of, anger towards, and fear of "wild" animals, and not just local animals, but generalized attitudes to wildlife on a much larger scale of human perception, as well as resentment and irritation toward, and consequent decline in support of wildlife and land conservation and the people who are supposed to be doing it.

This large scale negative outcome of mountain biking invasion of a landscape is just another cumulative effect of catering to extreme recreation and the shrill political intimidation of mtn bikers. With stunning ease the mtn biking lobby has overpowered citizens and local councils and regulators/managers and crushed, derailed and/or displaced traditional uses and wildlife and land conservation measures and initiatives in urban and municipal Parks and landscapes.

While mountain biking and bikers continue to build a legacy of environmental destruction and social conflict that has been ongoing in a large scale way on National-state-provincial Forests and in National Parks, their invasion of urban and municipal park areas is "new" and threatens to destroy further the already stretched and frayed tentacles that connect the natural world to the majority of Americans and Canadians that now live in Urban areas.

Calgary, AB and Penticton, BC

07 August 2014

Make sure you understand that any concession to bikes and bikers is just the camel's nose under the tent flap. More to the point, with this process you blaze the future of Emmenegger as either a nature park or a sweat park. By the path you choose now, one will come to dominate. With many other commenters, I recommend:

---new entrance sign should say "Emmenegger Nature Park" not just

"Emmenegger Park," to preserve the park's unique identity

---NO trail development through the Meramec riverfront, essential as

a wildlife corridor, peaceful aesthetic refuge and irreplaceable

local example of natural river habitat

---continue bike ban to protect against mountain bike abuse, need

sign + bike rack at entrance

---work with Kirkwood Parks Department in addressing off-leash dog problems

---don't waste \$\$\$ on a playground, kids should be encouraged to explore nature

---prioritize + earmark \$\$\$ for restoration of glades and other natural assets

---dedicate \$\$\$ for honeysuckle and euonymus eradication

---improve for BEST water quality, wildlife corridor, biodiversity

and deer management

---NO further development/construction, preserve the park's rustic

and unspoiled qualities

I was wondering if there's some way you guys could convince Kirkwood to allow Emmenegger to remain open at least half an hour after sunset, like most parks administered by the St. Louis county parks department. Currently they have a restriction of having to leave the area exactly at sunset, and it tends to be enforced to the letter regardless of the day of the week, even though pretty much all the county parks nearby are open for at least another half hour, with the park rangers frequently closing the gates to the parks a bit later than even that. Also would it be possible, to convince them to allow for maybe a night or two in the summer, where they allow fishing overnight? Aside from that would it be feasible to allow access for fishing on the river a little further into the wooded area via some trail leading to a clearing on the bank of the river. Currently all the fishing opportunities are concentrated withing a short distance from the parking

lot, which is convenient but can get packed when the river has risen a lot and there's only a few spots available where vegetation or debris in the river by the bank make it difficult to fish the area if someone's already there doing the same.

As the then president of the Kirkwood Park Board, I had given comments, clarifications and questions on the first draft of this management plan. My questions have been answered and suggestions incorporated into this second draft. The Management Plan looks great to me. My only suggestion is to address the somewhat frequent violations of the dog leash regulations and occasional use of bikes in the park. Is it possible to increase patrols by MDC and Kirkwood Park rangers to minimize these violations. These are my personal observations of violators made while doing invasive plant removal at Emmenegger as part of the Kirkwood Parks Assistance Corp (KPAC). This is a volunteer group I started while on the Board.

24 August 2014

TO : MDC

#### MANAGEMENT PLAN SUGGESTIONS

The purpose of this message is to respond to the MDC invitation for comment on the proposed Management Plans for Emmenegger Nature Park and Possum Woods Conservation Area.

I wish to commend the Missouri Department of Conservation for inviting public participation during the development phases of this plan.

1. The long range highest and best use for these areas is one where the biological integrity (natural processes and optimum biodiversity) of the Terrestrial Natural Communities<sup>1</sup> are restored/reconstructed to those conditions that were extant prior to the advent of the european culture to the maximum degree possible.

1.1 To establish a baseline, this will require that MDC perform a thorough study of valid historical records, private and governmental, to establish the condition of the vegetative communities prior to urbanization, agriculture and the concomitant invasion of exotic species, et al.

1.2 Conduct scientifically designed, thorough and comprehensive mapping and inventory of all current biota (plant, animal, bryophyte, and fungi) in each of the areas.

1.2 The plan should call for a repeat of these surveys on a schedule (5 - 10 years ?) such that future list differences may trigger corrective action where invasive species or changes due to climate change are considered threats to the integrity of the natural communities.

1.3 Encourage participation of citizen nature study organizations to maintain, exchange, or

augment survey lists of biota observed at the areas over time.

1.4. Develop and implement prescribed fire protocols that incorporate the latest science that will achieve the highest potential for the optimum biodiversity of vascular plants, bryophytes, invertebrates, animals, and fungi.

1.5 Design a natural surface trail system that brings the visitor to viewing access of all appropriate features and that tends to protect from erosion and human impact any rare/endangered species or Species of Conservation Concern. A riparian trail along the Meramec River, if any, should be of natural surface, narrow/single file tread, and at least 10 meters from the high-water shoreline.<sup>2</sup>

1.6 Purchase adjoining property from willing sellers or encourage conservation easement agreements with willing participants.

2. Set area rules and restrictions specifically for these two areas as follows:

2.1 Prohibit all publicly operated vehicular traffic access such as ORV's, motor bikes, mountain bikes, bicycles, et al.

2.2 Motorized vehicles/equipment should be permitted only when operated by MDC personnel for the purposes to effectively achieve and enhance the goals in paragraph 1. above, and for response to emergency situations regarding the life and safety of human visitors.

2.3 Permit deer/?turkey? hunting by archery only and in seasons according to state laws.

2.4 Prohibit horseback riding.

2.5 Prohibit use of single projectile firearms, fireworks, target shooting, and camping.

2.6 Prohibit any domestic livestock grazing.

2.7 Prohibit collection or taking of any plant, fungi, or animal specimens for any purpose without specific permission from MDC for scientific purposes.

2.8 Install motion detecting / photo systems if routine surveillance fails to protect the areas.

1. The Terrestrial Natural Communities of Missouri; Nelson, Paul W., Rev. Ed.; 2010; and the Missouri Species of Conservation Concern Checklist.

2. A paved trail along the riparian area will invite constant and heavy flow of traffic which in turn will disturb all wildlife and tend to cause them to stay away from the area. I observed this condition when a paved trail was installed at Clydesdale Park along Gravois Creek. Commonly seen were beaver, mink(?marten?), deer, turkey, kingfisher, great blue heron, rabbit, and others. Rarely are these seen since the installation of a paved trail.

Please place my name and address on the list to receive future notices of developments and planning at Emmenegger Nature Park and Possum Woods Conservation Area.

Than you for your attention to these comments.

Please PLEASE respect the "nature" in Emmenegger, it is a slice of natural beauty that is fragile, and valuable. Fragile in that it is being restored from invasive plants, like honeysuckle, by the hundreds of hours of volunteers, with native plants slowly coming back. Valuable in the beauty and solitude of the forest, views of the ridge, the many deer. I would suggest better signage, to explain why dogs NEED to be leashed, the damage they can do to a delicate area. The front area, where the pool was, can be more "public" but the back side, the trails..is a rare piece of land...Keep it free from bicycles, dogs, skateboards, pavement...You cannot really improve much on it, but you CAN destroy it..Please dont. Minimal development in the front, with the goal of protecting the natural aspect of the trails, is my request. Better explanatory signage, of the ecosystem, the plants, and the rules, is desirable, better knowledge, probably giving better compliance with dog rule. Thank you for the chance to input, and act wisely on this....its a treasure.

Collecting mushrooms for personal use should be permitted at Emmenegger -- as well as at Powder Valley. Unlike plants, mushroom organisms are not harmed when the fruiting bodies are picked, any more than picking an apple off a tree harms the tree. I am a member, but do not represent, the Missouri Mycological Society, and I value the DOC book, Missouri's Wild Mushrooms, by my friend, Maxine Stone.

Emmenegger Management Plan Draft 2014

Under Terrestrial Resource Mgt Considerations much concern is given to “suppression and control of invasive species” and that is greatly needed in this Nature Park. (page 5)

That should be the number one priority for the whole plan. It is costly in money and time spent by staff/volunteers but must be done to preserve the area plant and animal life.

Establishment of demonstration areas for established workshops and classes is important. (page 6)

Under Aquatic Mgt Considerations (page 7) Develop and construct a low impact gravel bar

access.

This should be given careful consideration as problems already exist for adjacent landowners because visitors wander onto private property from the gravel bars. In fact, the gravel bar itself presents a problem because Missouri law is not clear on what part is public and what part is private at different times. (level of water) Perhaps it is better to not increase such confusion for visitors.

Under Public Use Mgt considerations; (page 7) there is discussion of possible development of a “nature play area”

I am concerned about the idea of making an additional attraction of play area in a nature park. People should come here to emphasize the study and observation of plant and animal life. We have plenty of play areas in Kirkwood Park and Greentree Park would be a good one to add such a playground.

I suggest the cost of building and maintaining such an area be put to the greatest need of removal of invasive species.

Under Public Use Mgt Objective 5 (page 8) “monitor regional trail efforts including the Ozark Trail and the Great River Greenway District River Ring” should be an on-going concern. Park Board has voted to not support/allow a trail between Emmenegger and the Meramec River. Outside interests may continue to press for such a trail. It is NOT in the interest of Kirkwood for two main reasons:

1. It will diminish the condition of the natural park by encouraging greater usage as people walk and bicycle through. The presence of any asphalt/developed path will discourage the passage of wild animals along the river.
2. When such trails are built they become the responsibility of the city to maintain. The area along the Meramec floods a lot. Often, several times in a year. Kirkwood does not need the added financial burden of paying, every year, for the maintenance of a path used mostly by non-Kirkwood residents.

Kirkwood needs to protect its natural and financial assets.

A problem which is not addressed:

That is the great number of off-leash dogs that visitors allow to roam through this natural area. Observers have reported many such sightings. When people are reminded that it is on-leash for dogs, they become angry or simply ignore the statement.

Even on-leash dogs are a problem in a nature park. It is well known that when dogs mark the areas with urine and feces it deters wild animals from staying in that area. Because we do not have on site rangers who can issue tickets, and because it has been observed that dog walkers bring several dogs to walk in the area, and because dog walkers ignore the signs and warnings, I suggest this park be made a NO DOG park, even on leash. People have been observed bringing their dogs from Illinois to this park to walk them off leash.

Why do we want to allow this excellent, historic, but relatively small piece of OUR nature to be degraded in plant and wild animal life because visitors selfishly and ignorantly ignore the law. Making it NO Dogs and having rangers visit regularly for the first few months should at least decrease the illegal actions in the area. Quarry Park is a No dog park and the number of dog walkers has decreased there.

We do need better signage marking the limits between private and public property in the area.

We need to be good neighbors and respect the property owners adjacent to the park.

I have been told that bikes have been observed on the Emmenegger trails. That should absolutely not be allowed and DOC should devise some plan to discourage bikes. As time passes, our natural areas will become more and more popular and the public will want to use them as they use Kirkwood Park, for example. That is very inappropriate and DOC should find some way to educate the public and eliminate usages of this natural area which tend to diminish the wild plant and animal life, and destroy the importance of a NATURAL AREA.

Thanks for hearing my concerns! I think we need to focus on the most important concerns AND not spend huge dollars!

I commented previously. However, I wish to add something to that statement. It has been reported that mountain bikers have been seen riding in Emmenegger and tracks have been noted there. Because of the threat to the wildlife and natural plants I wish to recommend that signs be posted prominently and spot checks be made to ticket bikers in that park, along with dog walkers. It becomes a serious matter of our taking the necessary actions to protect this natural area and attempt to keep it in as natural as possible. Although some people wish to use the area inappropriately, it is the responsibility of the DOC and Kirkwood Park Board, of which I am a member, to take actions to educate users and take action to keep this natural area from being eroded and erased as time passes.

I don't think a paved bicycle path along the Meramec River is a good idea. It would spoil the scenic view and the serenity of the area, which is supposed to be a nature park and conservation area, not a typical city park.

III Infrastructure: Access Road from Stoneywood Dr. to the paved disabled access loop is not listed

Overview and IV.A. Deed restrictions: While the City of Kirkwood lease says the State MCD manages the park, I thought it was a joint management arrangement. Does the City of Kirkwood, or its Parks and Recreation Department share Administrative responsibility with MDC's Outreach and Education department; and Maintenance Responsibility with MDC's Outreach and Education, and Design and Development departments? Will it in the future as the lease is renegotiated?

## V. Terrestrial Resource Management Considerations

V. General Description: Albizia julibrissin, the Mimosa or Silk tree is also an invasive exotic species which needs to be suppressed and controlled.

V. Management Objective 1: While it helps to designate who is responsible for each strategy, I believe that rather than have three different groups assigned to specific management strategies, it would be better to organize a group of volunteers from all three, but devoted to Emmenegger. I cannot tell you how many times I have heard, "Well I thought Powder Valley volunteers were doing that." or "I heard that KPAC (Kirkwood Parks Assistance Corps) was doing that." "That job belongs to Kirkwood Parks and Recreation maintenance staff." I know there are not enough volunteers, or staff hours, to achieve this objective and its strategies. But I also know the division of responsibility for each one of them is leading to confusion, misinterpretation, and lack of clarity in achieving this objective.

V. Management Objective 2: There needs to be a strategy of building and maintaining the fences for the glades; right now the wooden fences marking the glades by the trail have been vandalized and some rails have been broken--for several years now. It is also a desire of mine to have the trees which have overgrown the glades be cut down (not only fire suppression), as well as enlarging them.

V. Management Objective 3, Strategy 3: There are existing signs that have been placed on the trail, or in front of structures like the chimney swift tower. But many were poorly designed (could not last in weather), vandalized, are inconsistent with other interpretative signs, or have deteriorated due to neglect.

V. Management Objective 4, Strategy 4: The best pervious surface for the unpaved, single-use Bluff Creek trail is the use of wood chips--which are pervious, along with erosion barriers erected at a 30 angle to the path--and the chips are free and freely available. While some may disagree, the wood chips are a stable, permeable and long lasting surface which does not appear

to erode or wash out rapidly. I have never seen any instance where these chips were washed into the rivers and streams during a storm. And they do prevent erosion of the trail path. The current spreading of wood chips over part of the trail was laid down a year and a half ago, and they still largely remain on the path. However, the trail is desperately in need of a new spreading of wood chips. This is also an issue of whose responsibility is it to spread chips. Is it Kirkwood Park maintenance staff, KPAC, or MDC volunteers who do this?

## VII Public Use Management Considerations

VII Management Objective 2, Strategy 1: There used to be a 3-D topo map under glass at the shelter by the small parking lot; was that vandalized/stolen or just removed? It would be nice to get it replaced. And to have the bulletin board more consistently updated and maintained, including having brochures available.

VII Management Objective 2, Strategy 3: I have a concern that the more signs and sign pollution, the less effective they are in providing information, direction and education, as well as regulation enforcement. Erecting six regulatory signs regarding leashing dogs has not prevented violators. Perhaps interpretive and regulatory signs could be more uniform and consistently posted and placed. And regulatory signs posted could be rotated on some sort of schedule. Not many read the signs with all regulations on it in fine print, and remember what rules to follow. Having a rotation of interpretive signs might be a good idea, too.

VII Management Objective 5, Strategy 3: Monitoring regional trail efforts will not facilitate a good working relationship with neighbors. It is a separate process between the City of Kirkwood, Great River Greenway and Trailnet. And consideration of trails to Emmenegger, purported to connect Emmenegger to other parks, or consideration of making Emmenegger a trailhead, in addition to considering a biking/hiking paved trail through Emmenegger, will significantly alter the character of the park. The greatest concern is for continual and persistent violations of cyclists using the existing Bluff Creek trail as a bike path, which it isn't, and thus causing erosion. If Emmenegger becomes a trailhead on a bike route, or a stop on a paved hiking/biking trail such as the existing Grants Trail (which I understand the Ozark Trail may resemble), the enforcement of existing regulations will have to be greatly increased. And it still will alter the character of the existing park. I believe this strategy should be eliminated from the plan. And if not, then eliminate the monitoring of the Ozark trail as part of this strategy.

## VIII. Administrative Considerations

VIII. Management Objective 1, Strategy 1: What ARE the current responsibilities for maintenance? Clarity on this is needed, sooner than later. This is critical in maintaining infrastructure, at any level.

VIII. Management Objective 2, Strategy 1: I would say "at an optimal level" rather than the current level. There is so much that isn't being done now, due to financial/budgetary constraints, the number of volunteers available, and the fact that volunteers are never solely dedicated to Emmenegger. I have a list I could submit, but I hold back because I don't know who can do it, who is responsible, and where the money will come from. It includes everything from re-erecting barriers to prevent hillside erosion at the shortcuts from the paved disabled accessible trail to the Loop (Bluff Creek) Trail--to honeysuckle removal, trail maintenance, repair and coating the asphalt on the disabled accessible loop, interpretive signs, prevention of bicyclists using the walking trail as a bike route, planting butterfly friendly species of milkweed, erecting bluebird houses, marking important and significant tree species, erecting historical signs, removing mud from the older wooden bridge on the Bluff Creek Trail, replacing the trail marker signs--the list can go on and on and on.

Finally, thank you for all the hard work you have put in on this plan.